

## **APPENDIX B**

### **Material Flow Diagram and Recycling Calculations: Calendar Year 2022**

## Appendix B MSW CY 2022

| Item No. | Material Description   | Sources of Data                                    | Total (tons/yr) | Comments  |
|----------|--|--|-----------------|---|
| 0        | Construction & Demo Debris Private Export* (Recycled & Landfilled) | Licensed Collector Reports under ER 5-13AM         | 217,126         | Not County-managed, includes both disposed and recycled C & D       |
| 1        | Recycled via non-County Facilities                                 | Collector, Processor, Business & Self-Hauler Rpts. | 198,804         | Filtered to avoid double-counting                                   |
| 2        | County Recycling Facility Material Sales                           | County TS & MRF                                    | 70,835          | Outgoing to market from County Recycling Center & Penn Waste        |
| 3        | Mulch Loaded Out From TS   | County Transfer Station (TS)                       | 26,993          | Scaled out as taken to County Mulch Contractor & Preserve Locations |
| 4        | Non-Processibles Recycled**  | County TS  | 16,823          | Not included in MRA recycling calculation                           |
| 5        | Non-Processibles Landfilled**                                      | County Trans. Statn. & Covanta                     | 39,961          | Not included in MRA recycling calculation                           |
| 6        | RRF (MSW burned) Approx.   | Covanta  | 483,439         | Total tons loaded on rail to RRF Net of 6a                          |
| 6a       | RRF (C&D Burned) Approx.   | County Transfer Station (TS) Scale Records         | 78,422          | In-Bound C&D less Outbound Non-Processibles Landfilled              |
| 6b       | By-pass (Accepted Processible Landfilled)                          | County TS Scale Out Records                        | 12,562          | MSW shipped to landfill   |
| 6c       | By-pass (Accepted Processible Landfilled) C&D                      | County Transfer Station (TS) Scale Records         | 2,038           | In-Bound C&D less Outbound Non-Processibles Landfilled              |
| 7        | Refuse Disposed Out of County                                      | Hauler Reports                                     | 69,244          | Private Sector MSW Collection not delivered to County/TS            |
| 8        | All Incoming Leaves and Grass                                      | Compost Facility                                   | 56,875          | Includes 0 to Backup Composters                                     |
| 9        | Composting Residue to RRF  | MES Scale Records                                  | -               | Reported by Compost Facility Manager                                |
| 10       | Ferrous recovered at RRF   | Covanta  | 11,815          | Recovered from ash at County Facility                               |
| 10a      | Ferrous recovered at RRF (C&D Residue)                             | Internal Calculation                               | 1,916           | Not included in MRA recycling calculation                           |
| 11       | Ash Loaded to Ash Contractor                                       | Republic Monthly Report                            | -               | Total ash (includes 12, 12a, and 13)                                |
| 12       | Ash outgoing from Ash  | Republic Monthly Report                            | -               | Not included in MRA recycling calculation                           |
| 12a      | Ash outgoing from Ash Recycler (C&D Residue)                       | Internal Calculation                               | -               | Not included in MRA recycling calculation                           |
| 13       | All Ash not recycled   | Covanta Scale Records                              | -               |   |

553,430

| Montgomery County Recycling Rate and Waste Diversion Rate Calculations (MRA Method) |  |             |         |
|---|--|-------------|---------|
|   | Numerator  | Denominator | Rate    |
| Recycling Rate  | (1 + 2 + 3 + 8 - 9 + 10) / (CMW - 4 - 5 - 6a - 6c) | 365,321     | 918,751 |
| Recycling Rate with Source Reduction Credit   |  |             | 44.76%  |

Notes:

- \* Construction and Demolition waste (C&D) is waste identified by place of origin - construction or land clearing sites. C&D is reported on licensed hauler reports, but there may be additional C&D tons not reported and therefore not included in stream 0.
- \*\* Nonprocessibles are Construction & Demolition-type materials: not eligible for recycling credit, but are County-managed solid waste.
- \*\*\* Diversion Rate = Recycle Rate + 5.0% Source Reduction Credit

Nomenclature:

- "C&D" means "Construction and Demolition" waste, exclusive of MSW, traditionally managed by the private sector, but much now comes to County TS.
- "CMW" means "County Management Waste". It includes all MSW, whether or not exported by private sector collectors, but only C&D delivered to TS.
- "MSW" stands for "Municipal Solid Waste", and represents the waste eligible for recycling under the State recycling law, regulations and guidelines.
- "TS" stands for the County's "Transfer Station", located in Derwood, Maryland, just south of Gaithersburg.
- "MRF" stands for Material Recovery Facility
- "RRF" stands for Resource Recovery Facility

|   |           |
|---|-----------|
| Total Waste Generation, Including C&D Exported by Private Sector (sum of streams 0 through 8) |           |
| County-Managed Waste (CMW) = 1 + 2 + 3 + 4 + 5 + 6 + 6a + 6b + 6c + 7 + 8                     | 1,055,995 |
| MSW Generated (County Managed Waste less streams 4, 5 6a and 6c)                              | 918,751   |